RE: ***NEW VETURE GEAR 035-16452-00015***
TO: Interested Parties / Applicant

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

January 30, 2003

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this approval is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within (18) eighteen days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) the date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for consideration at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

Mr. Michael A. Dick
New Venture Gear of Indiana, L.L.C.
P.O. Box 2527
Muncie, IN 47307-2527

January 30, 2003

Re: **035-16452**
Minor Source Modification to:
Part 70 Operating Permit No.: T035-7145-00015

Dear Mr. Dick:

New Venture Gear of Indiana, L.L.C. was issued Part 70 Operating Permit T 035-7145-00015 on April 16, 1999 for a stationary automobile and light duty truck transmission manufacturing plant. A first reopening (R 035-13189-00015) was issued on December 13, 2001. An application to modify the source was received on November 13, 2002. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

One (1) nozzle shot peener, identified as BT-36267, equipped with a dust collector exhausting only inside the building, capacity: 16,200 pounds of steel shot and 1,440 pounds of parts per hour.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless

modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

The source may begin construction and operation when the minor source modification has been issued. Operating conditions shall be incorporated into the Part 70 Operating Permit as a minor permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter contact CarrieAnn Paukowits, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395, ext. 18, or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Original signed by
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments (Entire updated permit, TSD)
CAP/MES
cc: File - Delaware County
Delaware County Health Department
Air Compliance Section Inspector - Marc Goldman
Compliance Branch - Karen Nowak
Administrative and Development - Lisa Lawrence
Technical Support and Modeling - Michele Boner

January 30, 2003

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70
Minor Source and Minor Permit Modifications

Source Background and Description

Source Name:	**New Venture Gear of Indiana, L.L.C.**
Source Location:	**1200 West 8th Street, Muncie, Indiana 47302**
County:	**Delaware**
SIC Code:	**3714**
Operation Permit No.:	**T 035-7145-00015**
Operation Permit Issuance Date:	**April 16, 1999**
Minor Source Modification No.:	**035-16452-00015**
Minor Permit Modification No.:	**035-16881-00015**
Permit Reviewer:	**CarrieAnn Paukowits**

The Office of Air Quality (OAQ) has reviewed a modification application from New Venture Gear of Indiana, L.L.C. relating to the construction and operation of the following emission units and pollution control devices:

One (1) nozzle shot peener, identified as BT-36267, equipped with a dust collector exhausting only inside the building, capacity: 16,200 pounds of steel shot and 1,440 pounds of parts per hour.

History

On November 15, 2002, New Venture Gear of Indiana, L.L.C. submitted an application to the OAQ requesting to add an additional shot peener to their existing plant. New Venture Gear of Indiana, L.L.C. was issued a Part 70 permit (T035-7145-00015) on April 16, 1999. A first reopening (R 035-13189-00015) was issued on December 13, 2001.

The source name has been corrected in all headers, on the cover page and on all forms, to New Venture Gear of Indiana, L.L.C. This source is becoming a wholly owned subsidiary of General Motors Corporation, and the name of the source will be Manual Transmissions of Muncie, LLC, a wholly-owned subsidiary of General Motors Corporation. The closing date is around January 31, 2003. At that time, the source name will be changed again in an Administrative Amendment to the permit.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

There is no stack associated with this modification.

Recommendation

The staff recommends to the Commissioner that the Part 70 Minor Source and Minor Permit Modifications be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on November 13, 2002. Additional information was received on December 2, 12 and 20, 2002.

Emission Calculations

See pages 1 and 2 of 2 of Appendix A of this document for detailed emissions calculations.

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	**Potential To Emit** (tons/year)
PM	284
PM_{10}	244
SO_2	0.00
VOC	0.00
CO	0.00
NO_X	0.00

HAPs	**Potential To Emit** (tons/year)
Chromium	less than 1.0
Manganese	less than 1.0
Lead	0.001
Nickel	less than 1.0
TOTAL	Less than 3.00

Justification for Modification

The Part 70 Operating Permit is being modified through a Part 70 Minor Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(d)(9), "A modification that has a potential to emit greater than the thresholds under subdivision (4) that adds an emissions unit or units of the same type that are already permitted and that will comply with the same applicable requirements and permit terms and conditions as the existing emission unit or units, except if the modification would result in a potential to emit greater than the thresholds in 326 IAC 2-2 or 326 IAC 2-3." The proposed operating conditions shall be incorporated into the Part 70 Operating Permit as a Minor Permit Modification (MPM 035-16881-00015) in accordance with 326 IAC 2-7-12(b)(1) to operate the proposed emission unit.

County Attainment Status

The source is located in Delaware County.

Pollutant	Status
PM_{10}	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Delaware County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Delaware County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	1,183
PM_{10}	1,173
SO_2	765
VOC	10.8
CO	52.0
NO_X	684

(a) This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of two hundred fifty (250) tons per year or more, and it is not one of the 28 listed source categories.

(b) These emissions are based upon the limited potential to emit of the entire source, based on T 035-7145-00015, issued on April 16, 1999.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

Pollutant	PM (tons/yr)	PM_{10} (tons/yr)	SO_2 (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NO_X (tons/yr)
Proposed Modification	12.6	7.36	-	-	-	-
PSD or Offset Significant Level	25	15	40	40	100	40

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply. The potential to emit PM and PM_{10} is limited as described in the "State Rule Applicability" section of this document.

Federal Rule Applicability

(a) This modification does not involve a pollutant-specific emissions unit:

(1) with the potential to emit before controls equal to or greater than one hundred (100) tons per year, and

(2) that is subject to an emission limit and has a control device that is necessary to meet that limit.

Therefore, the requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not applicable.

(b) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

(c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20, 40 CFR 61 and 40 CFR Part 63) applicable to this proposed modification.

(d) The requirements of Section 112(j) of the Clean Air Act (40 CFR Part 63.50 through 63.56) are not applicable to this source because the source is not a major source of hazardous air pollutant (HAP) emissions (i.e., the source does not have the potential to emit 10 tons per year or greater of a single HAP or 25 tons per year or greater of a combination of HAPs) and the source does not include one or more units that belong to one or more source categories affected by the Section 112(j) MACT Hammer date of May 15, 2002.

State Rule Applicability - Individual Facilities

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

(a) This source is a major source pursuant to 326 IAC 2-2, PSD. The source did not undergo PSD review because the source was constructed prior to August 7, 1977.

(b) Pursuant to T035-7145-00015, issued on April 16, 1999, the PM from the four (4) existing nozzle shot peeners, constructed in 1998, is limited to 24.0 tons per year, and the PM_{10} emissions from those shot peeners is limited to 14.0 tons per year. Specific limitations are as follows:

(1) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration) and Construction Permit CP 035-9670-00015, issued July 24, 1998, the allowable Particulate Matter (PM) emissions from the nozzle shot peen 225, nozzle shot peen 448208-2 and the rebuilt nozzle shot peen shall not exceed 0.867 pounds per hour, each. The allowable Particulate Matter (PM) emissions from the double wheel shot peen 999 shall not exceed 2.88 pounds per hour. These Particulate Matter (PM) emission limits, equivalent to 24 tons per year, will make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

(2) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration) and Construction Permit CP 035-9670-00015, issued July 24, 1998, the allowable PM-10 emissions from the nozzle shot peen 225, nozzle shot peen 448208-2 and the rebuilt nozzle shot peen shall not exceed 0.506 pounds per hour each. The allowable PM-10 emissions from the double wheel shot peen 999 shall not exceed 1.68 pounds per hour. These PM-10 emission limits, equivalent to 14.0 tons per year, will make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable. Thus, that modification was a minor modification to the existing major source, pursuant to 326 IAC 2-2, PSD.

The applicant has agreed to include this new shot peener within the existing limits. The new shot peener is included with the limit for the double wheel shot peen 999. Therefore, the potential to emit PM from the total of the new shot peener and the exisiting double wheel shot peen 999 is limited to 2.88 pounds of PM per hour, equivalent to 12.6 tons per year, and 1.68 pounds of PM_{10} per hour, equivalent to 7.36 tons per year. Thus, the potential to emit PM is less than 25 tons per year and the potential to emit PM_{10} is limited to less than 15 tons per

year from this proposed modification, and this modification is a minor modification to an existing major source, pursuant to 316 IAC 2-2, PSD. The total potential to emit PM from the total of the one (1) nozzle shot peener and one (1) double wheel shot peen 999 is 0.792 pound per hour after controls by the dust collectors, and the total potential to emit PM_{10} is 0.681 pound per hour after controls by the dust collectors. Therefore, the dust collectors shall be in operation at all times the one (1) proposed nozzle shot peener is in operation, in order to comply with this limit.

326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies)

The particulate from the one (1) proposed nozzle shot peener shall not exceed 17.6 pounds per hour when operating at a process weight rate of 8.82 tons per hour. The potential to emit PM from the one (1) nozzle shot peener is 0.648 pounds per hour after control by the dust collector. Therefore, the dust collector shall be in operation at all times the one (1) proposed nozzle shot peener is in operation, in order to comply with this limit. This limitation is based upon the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

The one (1) nozzle shot peener has the same applicable compliance monitoring conditions as the existing shot peens. This includes quarterly bag inspections. During the review of T035-7145-00015, issued on April 16, 1999, IDEM, OAQ, determined that visible emission notations and pressure drop measurements are not required for these units, which only exhaust inside the building.

These monitoring conditions are necessary because the dust collector for the nozzle shot peener must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies) and 326 IAC 2-7 (Part 70), and make the modification a minor

modification pursuant to 326 IAC 2-2, PSD.

Proposed Changes

The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language appears in **bold**):

The name of IDEM's "Office of Air Management" was changed to "Office of Air Quality" on January 1, 2001. All references to "Office of Air Management" in the permit have been changed to "Office of Air Quality" and all references to "OAM" have been changed to "OAQ."

The source name has been corrected in all headers, on the cover page and on all forms, as follows:

~~New Venture Gear, Inc., Muncie Transmission Division~~ **New Venture Gear of Indiana, L.L.C.**

This source is becoming a wholly owned subsidiary of General Motors Corporation, and the name of the source will be Manual Transmissions of Muncie, LLC, a wholly-owned subsidiary of General Motors Corporation. The closing date is around January 31, 2003. At that time, the source name will be changed again in an Administrative Amendment to the permit.

The responsible official has been changed from a specific name to a title, to reduce further amendments, as follows:

Responsible Official: ~~Jack R. Wagner~~ **Vice President and Divisional Manager**

Section A.2 has been revised as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(1) Two (2) natural gas fired boilers (Boiler 1 and Boiler 2) each with a heat input rate of 85.0 million British thermal units per hour, both exhausting at one (1) stack, identified as #676. Each boiler utilizes No. 4 fuel oil (Internal or External reclaim oil) as a back up fuel.

(2) Eight (8) Wheelabrator steel shot peeners (abrasive cleaning units) each with a maximum capacity of 36,000 pounds of shot circulated per hour, with particulate matter emissions controlled by separate baghouses (two are controlled by one baghouse #27760) exhausting at seven (7) separate stacks identified as #801 through #807 (two exhaust through stack #807).

(3) One (1) Wheelabrator steel shot tumblast (abrasive cleaning unit) with a maximum capacity of 22,500 pounds of shot circulated per hour, with particulate matter emissions controlled by a baghouse exhausting at one (1) stack, identified as #808.

(4) One (1) nozzle shot peen 225, with a maximum capacity of 6,000 pounds per hour of shot, with particulate matter emissions controlled by a cartridge-type baghouse dust collector.

(5) One (1) nozzle shot peen 448208-2, with a maximum capacity of 6,000 pounds per hour of shot, with particulate matter emissions controlled by a cannister-type baghouse dust collector.

(6) One (1) rebuilt nozzle shot peen, with a maximum capacity of 6,000 pounds per hour of shot, with particulate matter emissions controlled by a cartridge-type baghouse dust collector.

(7) One (1) double wheel shot peen 999, with a maximum capacity of 36,000 pounds per hour of shot, with particulate matter emissions controlled by a baghouse dust collector.

(8) One (1) nozzle shot peener, identified as BT-36267, equipped with a dust collector exhausting only inside the building, capacity: 16,200 pounds of steel shot and 1,440 pounds of parts per hour.

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

(4) One (1) nozzle shot peen 225, with a maximum capacity of 6,000 pounds per hour of shot, with particulate matter emissions controlled by a cartridge-type baghouse dust collector.

(5) One (1) nozzle shot peen 448208-2, with a maximum capacity of 6,000 pounds per hour of shot, with particulate matter emissions controlled by a cannister-type baghouse dust collector.

(6) One (1) rebuilt nozzle shot peen, with a maximum capacity of 6,000 pounds per hour of shot, with particulate matter emissions controlled by a cartridge-type baghouse dust collector.

(7) One (1) double wheel shot peen 999, with a maximum capacity of 36,000 pounds per hour of shot, with particulate matter emissions controlled by a baghouse dust collector.

(8) One (1) nozzle shot peener, identified as BT-36267, equipped with a dust collector exhausting only inside the building, capacity: 16,200 pounds of steel shot and 1,440 pounds of parts per hour.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 PSD Minor Limit **(Particulate)** [326 IAC 2-2] [40 CFR 52.21] **[326 IAC 6-3]**

(a) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration) and Construction Permit CP 035-9670-00015, issued July 24, 1998, the allowable Particulate Matter (PM) emissions from the nozzle shot peen 225, nozzle shot peen 448208-2 and the rebuilt nozzle shot peen shall not exceed 0.867 pounds per hour, each. The **total** allowable Particulate Matter (PM) emissions from the double wheel shot peen 999 **and one (1) nozzle shot peener, identified as BT-36267,** shall not exceed 2.88 pounds per hour. These Particulate Matter (PM) emission limits, equivalent to 24 tons per year, will make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable and satisfy the requirements of 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes).

(b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration) and Construction Permit CP 035-9670-00015, issued July 24, 1998, the allowable PM-10 emissions from the nozzle shot peen 225, nozzle shot peen 448208-2 and the rebuilt nozzle shot peen shall not exceed 0.506 pounds per hour each. The **total** allowable PM-10 emissions from the double wheel shot peen 999 **and one (1) nozzle shot peener, identified as BT-36267,** shall not exceed 1.68 pounds per hour. These PM-10 emission limits, equivalent to 14.0 tons per year, will make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

Condition D.4.3 has been moved from the Compliance Monitoring Requirements section of the permit to the Compliance Determination Requirements section of the permit.

D.4.3 Control Equipment Requirements

(a) Pursuant to Construction Permit CP 035-9670-00015, issued July 24, 1998, the baghouses used to control particulate matter emissions from the four (4) shot peens (225, 448208-2, rebuilt and 999) shall be in operation at all times that the respective shot peens are in operation**; and**

(b) **In order to comply with Condition D.4.1, the dust collector used to control particulate matter emissions from the one (1) nozzle shot peener, identified as BT-36267 shall be in operation at all times that the shot peener is in operation.**

D.4.4 Baghouse Inspections

Pursuant to Construction Permit CP 035-9670-00015, issued July 24, 1998, an inspection shall be performed each calender quarter of all bags controlling the four (4) shot peens **and one (1) nozzle shot peener, identified as BT-36267,** when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

Conclusion

The construction of this modification shall be subject to the conditions of the attached Part 70 Minor Source Modification No. 035-16452-00015, and the operation of this proposed modification shall be subject to the conditions of the attached Minor Permit Modification No. 035-16881-00015.

Appendix A: Emission Calculations
Abrasive Blasting - Confined
New Peener

Compar New Venture Gear of Indiana, LLC
Address 1200 West 8th Street, Muncie, IN 47307
Minor S 035-16452
Minor P 035-16881
Plt ID: 035-00015
Reviewe CarrieAnn Paukowits
Date: November 13, 2002

Table 1 - Emission Factors for Abrasives

	Emission Factor	
Abrasive	lb PM / lb abras	lb PM10 / lb P
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	

Table 2 - Density of Abrasives (lb/ft3)

Abrasive	Density (lb/
Al oxides	160
Sand	99
Steel	487

Flow Rate (FR) (lb/hr) = **1800** per nozzle

Uncontrolled Emissions (E, lb/hr)

EF = emission factor (lb PM/ lb abrasive) From Table 1 =	0.004
FR = Flow Rate (lb/hr) =	1800.000
w = fraction of time of wet blasting =	0 %
N = number of nozzles =	9

Uncontrolled PM Emissior	**64.8 lb/hr**
	284 ton/yr
Uncontrolled PM-10 Emiss	**55.7 lb/hr**
	244 ton/yr
Control Efficier	**99.0%**
Controlled PM Emissions	**0.648 lb/hr**
	2.84 ton/yr
Controlled PM-10 Emissio	**0.557 lb/hr**
	2.44 ton/yr

METHODOLOGY

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)
Ton/yr = lb/hr X 8760 hr/yr X ton/2000 lbs
Flow Rate (FR) (lb/hr) provided by the applicant and is higher than that calculated using a ratio to sand.
E for PM = EF x FR x (1-w/200) x N
E for PM-10 = EF x FR x (1-w/200) x N x lb PM-10/lb PM
w should be entered in as a whole number (if w is 50%, enter 50)

Appendix A: Emission Calculations
Abrasive Blasting - Confined
Existing peener (999)

Compar New Venture Gear of Indiana, LLC
Address 1200 West 8th Street, Muncie, IN 47307
Minor S 035-16452
Minor P 035-16881
Plt ID: 035-00015
Reviewe CarrieAnn Paukowits
Date: November 13, 2002

Table 1 - Emission Factors for Abrasives

	Emission Factor	
Abrasive	lb PM / lb abras	lb PM10 / lb P
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	

Table 2 - Density of Abrasives (lb/ft3)

Abrasive	Density (lb/
Al oxides	160
Sand	99
Steel	487

Flow Rate (FR) (lb/hr) = **36000** per nozzle

Uncontrolled Emissions (E, lb/hr)

EF = emission factor (lb PM/ lb abrasive) From Table 1 =	0.004
FR = Flow Rate (lb/hr) =	36000.000
w = fraction of time of wet blasting =	0 %
N = number of nozzles =	1

Uncontrolled PM Emissior	**144 lb/hr**
	631 ton/yr
Uncontrolled PM-10 Emiss	**124 lb/hr**
	542 ton/yr
Control Efficier	**99.9%**
Controlled PM Emissions	**0.144 lb/hr**
	0.631 ton/yr
Controlled PM-10 Emissio	**0.124 lb/hr**
	0.542 ton/yr

METHODOLOGY

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)
Ton/yr = lb/hr X 8760 hr/yr X ton/2000 lbs
Flow Rate (FR) (lb/hr) provided by the applicant and is higher than that calculated using a ratio to sand.
E for PM = EF x FR x (1-w/200) x N
E for PM-10 = EF x FR x (1-w/200) x N x lb PM-10/lb PM
w should be entered in as a whole number (if w is 50%, enter 50)